

REMARKS

Applicants note that a certified copy of the 0105975.7 UK application has not been filed. Applicants have requested the certified copy and will transmit it to the patent office when received.

Claims 1-12 and 14-18 are pending in the application. Claims 1-12 and 14-18 are rejected. The Examiner rejected claims 1-7 and 15-18 under 35 U.S.C. 103(a) as being unpatentable over Werbach, Cugnini, and in view of the admitted prior art. The Examiner rejected claims 8, 9-12 and 14 under 35 U.S.C. 103(a) as being unpatentable over Werbach, Cugnini, and the admitted prior art and further in view of Cool Edit.

As to claim 1, applicant respectfully submits that the combination of the cited prior art (Werrbach) and Cugnini and the admitted prior art (Werback) fail to teach or suggest all elements of claim 1. Further, there is no motivation to combine Cugnini, a reference dealing with broadcast transmission bandwidth requirements with Werbach.

Cugnini teaches using a conventional difference signal between two channels and a compressed difference signal in a broadcasting system. The conventional difference signal is then used at the receiver as a reference signal and combined with the expanded version of the compressed difference signal. (abstract) Whatever benefits of using such an approach may have on meeting the bandwidth requirements of the system in Cugnini, the reference neither offers a specific teaching as to modifying bandpass filtered right and left low frequency signals in accordance with the constraints recited in claim 1 nor provides any motivation to combine its broadcast compression expansion techniques with the audio bass enhancement techniques of Werrbach.

Figure 3 in Cugnini shows a difference signal 30 and a compressed difference signal 32 (FIG. 3 and col. 5, lines 1-35). Showing this transfer function as performed on Cugnini's derived difference signal does not teach or suggest modifying the amplitude of the left and right low frequency signals as required by claim 1.

Moreover, in order to find obviousness, there must be some teaching, motivation,

or suggestion in the references or in the knowledge generally available to one of ordinary skill in the art. Here there is an absence of such a link to combine the compression techniques for a broadcast difference signal with the audio bass frequency enhancement of Werrbach in a non broadcast transmission context.

For at least the foregoing reasons, applicant submits that the combination of Werbach and Cugini and the admitted prior art (Werback) fail to teach or suggest all of the elements of claim1.

Claim 16 is submitted to be allowable for at least the same reasons as discussed above. Cugini's displayed transfer function for the difference signal fails to teach or suggest deriving a control signal from the left and right low frequency signals based on the respective low frequency signal having the larger absolute magnitude at each time point, modifying the control signal and amplifying the left and right low frequency signals using the modified control signal as recited in claim 16. Moreover, no reference has been cited to support an assertion that it would have been obvious to apply one control signal to both low frequency signals. For at least these reasons, applicants submit that the rejections have been overcome.

In view of the foregoing discussion, the rejections of claims 1 and 16 over the art of record are believed overcome. The dependant claims are submitted to be allowable for at least their dependencies from an allowable claim. Moreover, the dependent claims recite additional limitations, and are therefore allowable for these reasons as well. Further discussion of these distinctions is believed unnecessary in light of the distinctions discussed above relative to the independent claims.

Conclusion

Accordingly, it is submitted that all issues in the Office Action have been addressed, and withdrawal of the rejections is respectfully requested. Applicants believe that this application is in condition for allowance, and respectfully request a prompt passage to issuance. If the Examiner believes that a telephone conference would expedite the prosecution of this application, he is invited to contact the Applicants' undersigned attorney at the telephone number set out below.

Respectfully submitted,
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